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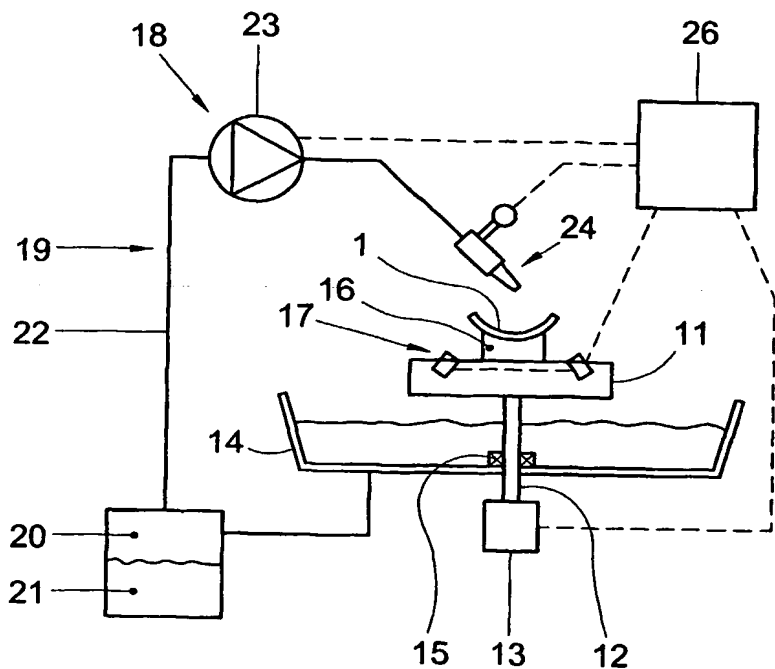
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[Continued on next page]

(54) Title: APPARATUS AND METHOD FOR MANUFACTURING OR WORKING OPTICAL ELEMENTS AND/OR OPTICAL FORMING ELEMENTS, AND SUCH ELEMENT.



(57) Abstract: The invention relates to an apparatus for forming or working optical elements and/or optical forming elements (1) comprising a working apparatus (18) for forming surfaces of form parts by machining or an abrasive technique, wherein at least one measuring device (17) is provided for measuring changes in form and/or surface roughness of said surface when said surface is being worked and, on the basis thereof controlling said working apparatus (18).

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ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE,
SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA,
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INTERNATIONAL SEARCH REPORT

International Application No

PC 03/00946

A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 B24C1/08 B24C1/00 B24B13/00 B24B49/12

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
 IPC 7 B24C B24B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 301 009 B1 (TINKER FLEMMING) 9 October 2001 (2001-10-09) the whole document	1-4, 8-16
Y		21-23
A		5-7
A	----- WO 99/26764 A (TNO ;FAHNLE OLIVER WOLFGANG (NL)) 3 June 1999 (1999-06-03) the whole document	3, 4, 8, 9, 16
Y		21-23
A	----- US 5 573 446 A (DEY THOMAS W ET AL) 12 November 1996 (1996-11-12) the whole document	1-16, 21-23
A	----- US 5 700 181 A (ARMSTRONG NEIL DEAN ET AL) 23 December 1997 (1997-12-23) the whole document	1-16, 21-23
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Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the international search

22 April 2004

Date of mailing of the international search report

08. 09. 2004

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INTERNATIONAL SEARCH REPORT

International Application No

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	GB 865 132 A (ABRASIVE DEV) 12 April 1961 (1961-04-12) the whole document -----	1-16, 21-23
A	DE 101 13 599 A (FISBA OPTIK AG ST GALLEN) 2 October 2002 (2002-10-02) the whole document -----	1-16, 21-23
A	PATENT ABSTRACTS OF JAPAN vol. 018, no. 130 (M-1570), 3 March 1994 (1994-03-03) & JP 05 318287 A (OKUMA MACH WORKS LTD), 3 December 1993 (1993-12-03) abstract -----	1-16, 21-23

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:

3. Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:
1-16, 21-23

Remark on Protest

The additional search fees were accompanied by the applicant's protest.

No protest accompanied the payment of additional search fees.

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-16, 21-23

1. claims: 1-4, 8, 14-16

An apparatus and a method for forming optical elements or optical forming elements with a working apparatus and a measuring device for measuring when said surface is being worked and for controlling the working apparatus where the working apparatus is provided with at least one jet nozzle from which, under pressure a blasting agent be dispensed.

2. claims: 5-7

An apparatus for forming optical elements or optical forming elements with a working apparatus and a measuring device for measuring when said surface is being worked and for controlling the working apparatus where in the holder at least one optical element is included while one or more light sources and light receivers are arranged below the holder.

3. claims: 10-13

An apparatus for forming optical elements or optical forming elements with a working apparatus and a measuring device for measuring when said surface is being worked and for controlling the working apparatus wherein the apparatus is provided with means for insulating the measuring device against vibrations.

4. claims: 21-23

A method for forming optical elements or optical forming elements where the momentarily worked surface is measured and the working apparatus is controlled on the basis of the measured thickness, and wherein the optical element is a contact lens.

2. claims: 17-20, 24-27

claims: 17-20, 24-27

An optical element, a mold for an optical element as well as a method for forming or working optical elements or optical forming elements wherein a recess and/or an elevation or a protuberance or a finishing layer with a locally removed part is formed.

INTERNATIONAL SEARCH REPORT

International Application No

PCT 03/00946

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